Amendments to the Specification are as follows:

Before the first sentence on page 1 please insert the following paragraph.

This application claims the benefit of priority to Japanese Patent Application Nos. 2003-114189, 2003-195159 and 2004-047756, herein incorporated by reference.

Please amend the paragraph beginning on page 40, line 1 and ending on page 40, line 24 as follows:

The nonmagnetic layer 32 preferably comprises a conductive material with low electric resistance, and in this embodiment, the nonmagnetic layer 32 comprises, for example, Cu. The nonmagnetic layer 32 is formed to a thickness of about 25 Å, for example. The free magnetic layer 31 partially or entirely comprises Fe-Co-Cu (wherein Fe > 10 atomic percent, Co > 30 atomic percent, and Cu > 5 atomic percent), Fe-Co-Cu-X (wherein X is at least one element of Pt, Pd, Mn, Si, Au, and Ag), or Co2MnY (wherein Y is at least one element of Ge, Si, Sn, and Al). The thickness of the free magnetic layer 31 is, for example, about 100 Å. Although the free magnetic layer 31 has a single-layer structure comprising a magnetic film, a laminated structure or laminated ferrimagnetic structure comprising magnetic films may be used. Furthermore, hard bias layers 63 are in contact with both sides of the free magnetic layer 31 and the nonmagnetic layer 32, the hard bias layers 63 being magnetized in the track width direction. Also, a first or second insulating layer 61 or 64 with a thickness of several Å to several tens Å may be interposed between the GMR element 30 and each hard bias layer 63. The magnetization of the free magnetic layer 31 is aligned in the track width direction (the X direction) by a longitudinal bias magnetic field of each of the hard bias layers 63.

Please amend the paragraph beginning on page 68, line 2 and ending on page 68, line 16 as follows:

After the resist layer is formed, portions of the upper nonmagnetic metal film 240, the free magnetic layer 333, the nonmagnetic layer 332, the second pinned magnetic layer 331c, the nonmagnetic intermediate layer 331b, and the first pinned magnetic layer 331a, which are not covered with

the resist layer, are removed by, for example, ion milling, and ion milling is stopped when the lower nonmagnetic metal film 220 is exposed. In the ion millingmilting step, the upper nonmagnetic metal film 240, and the GMR element 330 ranging from the first pinned magnetic layer 331a to the free magnetic layer 333 are left on the lower nonmagnetic metal film 220 at the substantially center in the track width direction. Since the substances removed by ion milling partially re-adhere to both sides of the GMR element 330, the re-adhering substances are preferably removed by milling again.

Please amend the paragraph beginning on page 93, line 1 and ending on page 93, line 18 as follows:

Then, as shown in Fig. 35, unnecessary portions of the antiferromagnetic layer 534 are removed by ion milling using, as a mask, the metal mask layer 650 present in the region where the antiferromagnetic layer 534 is formed, and the Ta film 641b of the first nonmagnetic metal film 641. The ion milling step is stopped when the upper surface of the first pinned magnetic layer 531a is exposed or when a part of the first pinned magnetic layer 531a is removed. In this step, the metal mask layer 650 used as the mask is also removed, and thus the Ta film 641b and the Cr film 641a of the first nonmagnetic metal film 641, and a part of the metal mask layer 650 are left on the upper surface of the antiferromagnetic layer 534. The metal mask layer 650 and the Ta film 641b may be completely removed to leave only the Cr film 641a on the antiferromagnetic layer 534. In this embodiment, the first pinned magnetic layer 641, and a part of the metal mask layer 650 are left on the upper surface of the antiferromagnetic layer 534.